Pecora VIII

IC 7-235

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(distributed 7-28-83)

25 July 1983

Mr. Allen H. Watkins, Chief
EROS Data Center
Geological Survey
U.S. Department of the Interior
Sioux Falls, SD 57198

Reference: POC 6-53

Dear Mr. Watkins:

We appreciate the opportunity to present the current plans of the American Science and Technology Corporation's land remote sensing program at the Pecora VIII meeting which will be held October 4-7 in Sioux Falls.

I have enclosed a title/author abstract sheet, per your invitation and instructions, and look forward to meeting with you and other colleagues at this important meeting.

Sincerely,

Norman H. MacLeod
Chairman

NHM/ams

Enclosure

THE ADVANCED EARTH RESOURCES OBSERVATIONS SATELLITE (AEROS), A PRIVATE SECTOR REMOTE SENSING SPACE SYSTEM

N. H. MacLeod, Chairman
American Science and Technology Corporation
Bethesda, Maryland

ABSTRACT

Since 1981, the American Science and Technology Corporation (AS&T) has been developing the AEROS commercial remote sensing space system. AEROS includes a solid state (CCD) sensor with four pairs of optical and near-infrared stereoscopic arrays at approximately 80 m and 40 m spatial resolution and a swath width of 320 km when flown at 920 km altitude. The spacecraft will weigh approximately 275 kg and will be launched into a polar sun-synchronous orbit with equatorial crossings at approximately 0930. Space Services, Inc., managing partner of this first U.S. commercial remote sensing venture, will provide the launch services.

The selection of sensor and orbital parameters were made to continue the services provided by the Landsat series conducted by NASA since 1972. In addition to the selected Landsat services of some MSS and TM bands, the AEROS system includes some CZCS bands at 80 m resolution as well as stereoscopic data in four spectral regions. The system is designed to operate in orbit for five years and has no moving parts. To be launched in 1986, AEROS-A will be the first of a series of increasingly comprehensive, operational earth observations satellites lasting into the 1990's.

AEROS system design and development are "user-driven" to produce a low-cost operational program. Additional features, such as additional high information spectral bands and stereoscopy, are added to meet perceived current and future user requirements.

The current discussions of the commercialization of the government-owned Landsat system in the Administration and the Congress provide a context for policy issues affecting the AEROS program, but AEROS technical decisions are being made on the basis of price and usefulness to the user.